

ABSTRACT OF THE DISCLOSURE

This invention provides a manufacturing method and manufacturing apparatus, in which a nitridation reaction is caused to proceed in a vapor phase in the presence of a flame, wherein the desired aluminum nitride powder is manufactured by simultaneously controlling the following technical conditions: that are (1) forming of a highly dispersed and stable fluidized or aerosol state of a raw-material powder whose particle size is included within the range of 0.001 to 500  $\mu\text{m}$ , (2) adjusting of the gas atmosphere in the flame, and utilizing of a direct nitridation method or a reduction nitridation method in which the high temperature of the flame is used as a driving force, and (3) controlling of the quantitative ratio of the raw material and the flame, or combining of heat treatment processes to be continued.